

# memorandum

DATE: September 5, 2008

REPLY TO

ATTN OF: IG-40

SUBJECT: Letter Report on "Sandia National Laboratory-New Mexico Student Intern Safety Training"  
INS-L-08-06 (Inspection No. S08IS007)

TO: Manager, Sandia Site Office

This Letter Report provides the results of an Office of Inspector General inspection of the student intern safety program at the Department of Energy's (DOE's) Sandia National Laboratory-New Mexico (Sandia). Sandia is a National Nuclear Security Administration (NNSA) facility operated by Sandia Corporation.

## BACKGROUND

Sandia's mission is to meet national needs in the areas of nuclear weapons, energy and infrastructure assurance, nonproliferation, defense systems and assessments, and homeland security. Because of the nature of its work, Department policy requires that Sandia establish an employee safety and health program, to include identifying specific job hazards and developing appropriate controls, such as required training and necessary personal protective equipment, in order to prevent or abate those hazards. Sandia identifies the applicable job hazards and associated controls in its "technical work documents."

In pursuit of future workforce development, Sandia employs a number of summer and full year student interns across its directorates. The work that student interns perform may be hazardous, so it is important that they are appropriately trained and equipped to safely perform their assigned duties. For example, on July 14, 2004, a student at Los Alamos National Laboratory suffered a severe eye injury from pulsed laser light while working in a laboratory there. An internal investigation determined that the student was not properly trained in laser functionality and failed to wear required laser eye protection.

We initiated an inspection to determine if Sandia student interns received required training and used necessary personal protective equipment in order to work safely with laboratory machinery, equipment, and hazardous materials. As part of our fieldwork, we selected a sample of 16 students identified as conducting "technical" work at various Sandia laboratories and facilities. We conducted a walk-through of 11 laboratories and 2 other facilities where the students worked, conducted numerous interviews, and reviewed the technical work documents that corresponded to the specific tasks performed by the students. All 11 of the laboratories contained hazardous chemicals.

## RESULTS OF INSPECTION

We concluded that, in general, Sandia student interns received required training and used necessary personal protective equipment when working with machines, equipment, and hazardous materials. For example, we determined that students were trained on specific job hazards and good housekeeping practices in the laboratories. However, we found that, contrary to DOE policy, the requirements for wearing safety glasses were not clearly delineated for 9 of the 11 laboratories we inspected. Safety glasses are an important element of an effective safety program because they can mitigate hazards not addressed by other kinds of controls, such as glove boxes for work involving hazardous chemicals.

Specifically, we observed the following while conducting walk-throughs of the 11 laboratories:

- A sign on the door to the first laboratory stated "safety glasses, as required." In response to a query from the inspectors, a laboratory manager said that they did not need to wear safety glasses in the laboratory. The inspectors and five Sandia employees accompanying them entered the laboratory and subsequently were in close proximity to two Sandia employees who were conducting experiments with "particularly hazardous materials." The two employees were both wearing safety glasses. The inspectors subsequently briefed an Environmental, Safety and Health (ES&H) coordinator regarding the matter, and the coordinator said that safety glasses were required to be worn by everyone in that laboratory.
- Prior to entering another laboratory, also posted with a sign stating "safety glasses, as required," the inspectors were informed by a Sandia ES&H official that safety glasses were required to be worn. However, upon entering the laboratory, the inspectors observed that the laboratory manager was not wearing safety glasses. The individual acknowledged that he should have been wearing safety glasses.

The Code of Federal Regulations, Title 10, Part 851.22, "Hazard Prevention and Abatement," requires contractors to develop written procedures that identify all job-related hazards and controls to mitigate the hazards within the workplace. We reviewed the technical work documents that should have detailed the procedures and safety controls for the laboratories and observed that 3 technical work documents that covered the work performed in 9 of the 11 laboratories lacked guidelines regarding when safety glasses were required to be worn. The three technical work documents only identified safety glasses as a control to be worn "as appropriate." We discussed this language with a Department Headquarters official responsible for DOE, including NNSA, safety and health policy, who confirmed that the technical work documents were inadequate with respect to the use of safety glasses. He said that the technical work documents are required to contain specific guidance regarding when safety glasses must be worn.

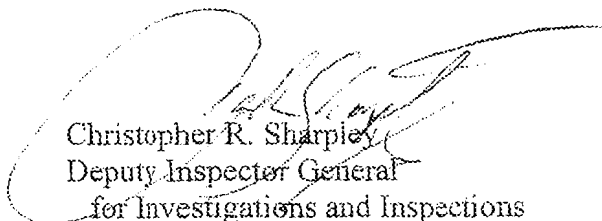
We note that our observation was similar to a finding in an April 2008 Office of Health, Safety and Security (HSS) review at Sandia's Hazardous Waste Management Facility. HSS

identified that a Field Operating Procedure only said "as appropriate" and "proper" when addressing the use of gloves when packaging different hazardous chemicals.

#### SUGGESTED ACTION

To address the issue outlined above, we suggest that the Sandia Site Office Manager ensures that Sandia amends its technical work documents to clearly define when safety glasses are required to be worn and ensures employees are knowledgeable of the requirements and implement them.

Since no recommendations are being made in this Letter Report, a formal response is not required. This inspection was conducted in accordance with the "Quality Standards for Inspections" issued by the President's Council on Integrity and Efficiency. We appreciate the cooperation we received from your staff during the inspection. If you have any questions concerning this review, please contact Ms. Elise Ennis, Director, Northeast Region, at 202-586-4109.



Christopher R. Sharpley  
Deputy Inspector General  
for Investigations and Inspections

cc: Chief Health, Safety and Security Officer  
Director, Policy and Internal Controls Management (NA-66)  
Director, Office of Internal Review (CF-1.2)  
Audit Liaison, Sandia Site Office